



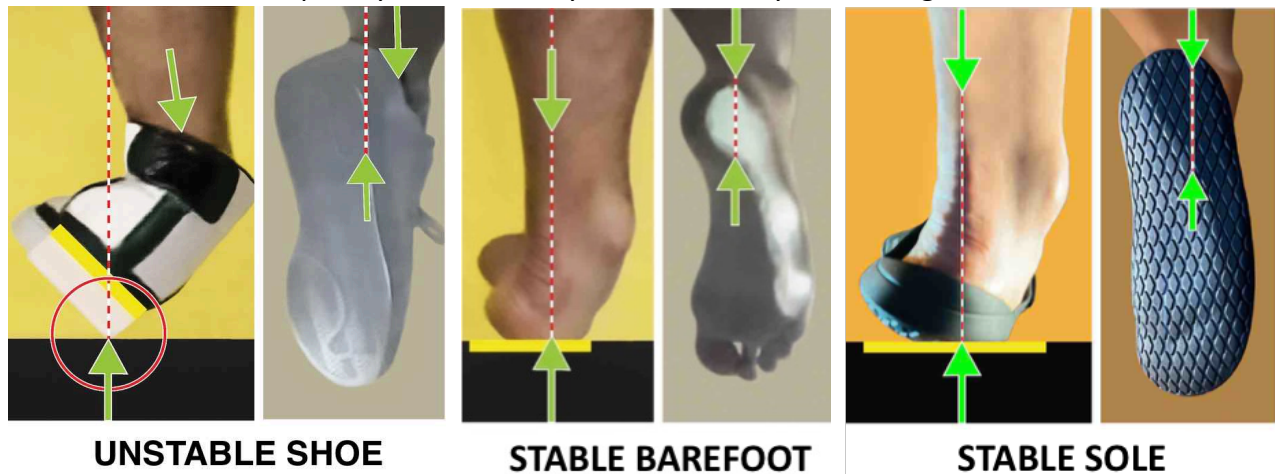
UNNATURAL INSTABILITY:

All Shoe Soles Have an Extremely Dangerous But Correctable Stability Defect

In medical science the human ankle is well-known to be highly unstable and often sprained. So it was incredibly shocking to discover that the **same ankle that is unstable in a shoe is naturally stable when barefoot**. Obviously, then, **shoes are unstable, not the ankle**. And anyone easily can prove it themselves (**carefully!**). The instability is due to a fundamental defect in the basic structure of the shoe sole, an ancient cobbler design at least 2,000 years old.

In a tilted **shoe sole**, a powerful destabilizing torque is created between artificially misaligned forces on the ankle that rotate the ankle outward while it is unstably balanced on a knife-edge of support. The **barefoot** has a wide footprint providing a steady base of stable support and opposing forces are in perfect natural alignment with no destabilizing torque.

Long hidden in plain sight, the shoe's defective stability is finally made obvious for all to see here. But still completely overlooked by a shoe industry now facing an inconvenient truth.



The effect of this previously invisible design defect is astonishing. It likely causes many or most of the **serious falls** that resulted in **\$151 billion in medical care costs from 1,700,000 hospitalizations, 6,570,000 Emergency Room visits, and 47,000 fall deaths in 2022** in the U.S. alone (CDC data). For context, **41,000 traffic deaths** occurred in 2023 in the U.S.

So the shoe design defect must be fixed. Redesigned **stable soles** are factory-built with a corrected shoe sole structure with stability like the barefoot and uniquely comfortable in initial testing. They use relatively inexpensive existing footwear technologies that are open and free to use. As a public service to end the ongoing public health disaster as soon as possible, the test prototype **stable soles** are available now for shoe companies to use the **stable sole's** simple basic structure as an initial design model, the first step to making footwear far safer.